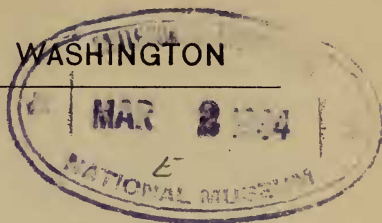


PROCEEDINGS  
OF THE  
BIOLOGICAL SOCIETY OF WASHINGTON

## NOTES ON THE SIPHONAPTERAN GENUS CATALLAGIA ROTHSCHILD, INCLUDING THE DESCRIPTION OF A NEW SPECIES.

BY H. E. EWING.

The genus *Catallagia* was established in 1915 by the late Hon. N. Charles Rothschild for a species described by the late Professor Charles F. Baker as *Pulex charlottensis*. Baker's *charlottensis* was taken from a mouse nest at Massett, Queen Charlotte Islands, and although described as a *Pulex*, it was soon transferred to *Odontopsyllus* Baker. Here it remained until the genus *Catallagia* was erected for it and three other species including one new one which Rothschild described as *decipiens*. This latter species was taken from various Murid hosts and at the following places: Horse Creek, Upper Columbia Valley, British Columbia; Blackfalls, Alberta; British Columbia (no other locality given); and Red Deer, Alberta.

The other two species included in Rothschild's *Catallagia* are *telegoni* Rothschild, described in 1905, and *wymani* Fox, described in 1909. The first of these two species was taken from a meadow mouse, *Microtus drummondi*, in the Upper Columbia Valley, and the second was taken from the California field mouse, *Microtus californicus*, at San Francisco, California.

Thus there are known up to the present four species of *Catallagia*, all being taken in western North America. This year, however, the writer has to report a species from the eastern part of the United States. It is a new one taken during the summer of 1928 in Maine, by W. J. Hamilton, Jr. This species, like all of the other known *Catallagias*, was found on a Murid host. Does the finding of this single species of *Catallagia* in Maine indicate that the genus *Catallagia* is dis-

tributed transcontinentally, and will it be found on Murid hosts throughout most of the Boreal Life Zone?

As stated by Rothschild, *Catallagia* is closely related to *Ceratophyllus*. It is, however, distinct in a number of important respects; in having a patch of short spines on the inner surfaces of the hind coxae, in having four instead of five pairs of lateral plantar bristles on the ventral surface of the fifth segment of the hind tarsus, and in having a peg-like frontal tubercle instead of the common type, as well as in some other respects.

The types of Baker's *charlottensis* and Fox's *wymani* are in the United States National Museum and have been examined by the writer. In addition to giving a description of the new species found, keys are given to the males and females of *Catallagia* species.

KEY TO THE KNOWN MALES OF THE GENUS CATALLAGIA.

1. Ninth sternite with but a single pair of subapical ventral spines.....2  
Ninth sternite with more than a single pair of subapical ventral spines...3
2. Ninth sternite uniformly fringed throughout most of its ventral margin with subequal setae.....*C. wymani* (Fox).  
Ninth sternite without any fringe of setae below but with two long, stout subequal setae on each side beyond the middle and with a ventral projection at the middle.....*C. telegoni* (Rothschild).
3. Ninth sternite with three subapical spines on each side and two long ventral spines about one-third the distance from the apex to base of the sternite.....*C. decipiens* Rothschild.  
Ninth sternite with four subapical spines on each side and without the longer ventral spines.....*C. charlottensis* (Baker).

KEY TO FEMALES OF CATALLAGIA SPECIES.

1. Frons with three rows of setae.....*C. telegoni* Rothschild.  
Frons with only two rows of setae.....2
2. Lower antepygial seta more than half as long as the middle one.....  
*C. decipiens* (Rothschild).  
Lower antepygial seta less than half as long as the middle one.....3
3. Frontal tubercle very large, longer than the width of the degenerate eye and projecting beyond the margin of the head. Occurring in northeastern part of the United States.....*C. borealis*, new species.  
Frontal tubercle much smaller, not equal to the width of degenerate eye.....4
4. Degenerate eye extending about two-thirds the distance across the genal lobe. Occurring in California.....*C. wymani* (Fox).  
Degenerate eye smaller, extending scarcely half way across the genal lobe.....*C. charlottensis* (Baker).

*Catallagia borealis*, new species.

*Female*.—Maxillary palpi slightly shorter than the labial palpi, the latter being about two-thirds as long as anterior coxae. Frontal tubercle prominent, longer than the width of the degenerate eye, and extending beyond the margin of the head. Four setae in ocular row, the second from the top being much smaller than the others and situated directly in front of the degenerate eye. Frontal row of setae extending from slightly below the insertion of the antenna to the anterior angle of head. It is composed of five setae. Occiput with three rows of setae, there being from four to six setae in a row.

Thorax much longer than head; prothorax shorter than metathorax; its ctenidium with sixteen spines or teeth. Mesosternite divided into two areas of almost equal size by a vertical chitinous rod. The anterior of these two areas has a single large seta almost approximate to the vertical rod; the posterior area has five setae arranged in two vertical rows, three in the front row and two in the last row.

Abdomen rather slender. Apical spines on tergites I–IV, inclusive. Outer of the three antepygidial setae about three-fifths as long as the middle one; the inner antepygidial seta slightly longer than the outer one. Eighth sternite with three subequal apical setae on each side and about five other setae not so stout as the apical ones.

Legs medium. Coxa I with about forty setae well distributed over its lateral surface. Coxae II and III each with a short, subapical vertical row of three setae.

Length, 2.66 mm.; height, 0.87 mm.

*Type host*.—Meadow mouse, *Microtus pennsylvanicus pennsylvanicus*.

*Type locality*.—Mt. Katahdin, Maine.

*Type slide*.—Cat. No. 41633, U. S. N. M.

Described from a female specimen taken from the type host at Basin Pond, Mt. Katahdin, Maine, September 7, 1928, by W. J. Hamilton, Jr. This species is rather closely related to *C. wymani* (Fox) and *C. charlottensis* (Baker) but differs from both of these species in having the head more highly arched, the frontal tubercle more conspicuous and a few other particulars.